

WASTEWATER PERMITS, INVOLVEMENT OPPORTUNITIES, & EFFECTIVE COMMENTING



The Alaska Pollutant Discharge Elimination System (APDES)

ALASKA DEPARTMENT OF ENVIRONMENTAL CONSERVATION (DEC)

MIRIAH TWITCHELL & WADE STRICKLAND

AFE – FEBRUARY 2012



NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)

CLEAN WATER ACT

- ✓ CWA Section 402 established NPDES
- ✓ Requires wastewater discharge permit for *point-source* discharges to waters of U.S.
 - ✓ *Point-source*: a specific point or location such as pipe, tank, or ditch from which pollutants enter a waterbody
- ✓ Authorizes states or tribes to implement permit program with EPA approval



AS OF MAY 2010



- ## State NPDES Program Status

-

ALASKA POLLUTANT DISCHARGE ELIMINATION SYSTEM (APDES)

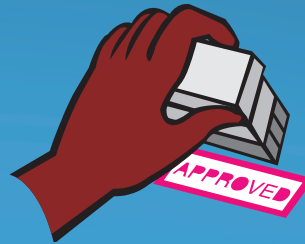


NPDES



APDES

- ✓ EPA approved DEC primacy application in October 2008
- ✓ Primacy transferred in 'Phases'
 - ✓ Phase I: October 2008
 - ✓ Phase II: October 2009
 - ✓ Phase III: October 2010
 - ✓ Phase IV: October 2012



FACILITIES BY PHASE



EPA AUTHORITY



REMAINS PERMIT AUTHORITY FOR

- ✓ Indian Country, National Parks (Denali), Biosolids Program, 3-miles off-shore, and 301(h) waiver facilities

OVERSEES APDES PROGRAM

- ✓ Reviews/comments on permits, require additional information, conduct facility inspections and/or separate enforcement actions

PROVIDES OUTREACH & ASSISTANCE TO TRIBES

- ✓ Consultation, sends PIP, solicit permit concerns, coordinate tribal permit reviews, share draft permit comments



COMMUNITY INVOLVEMENT

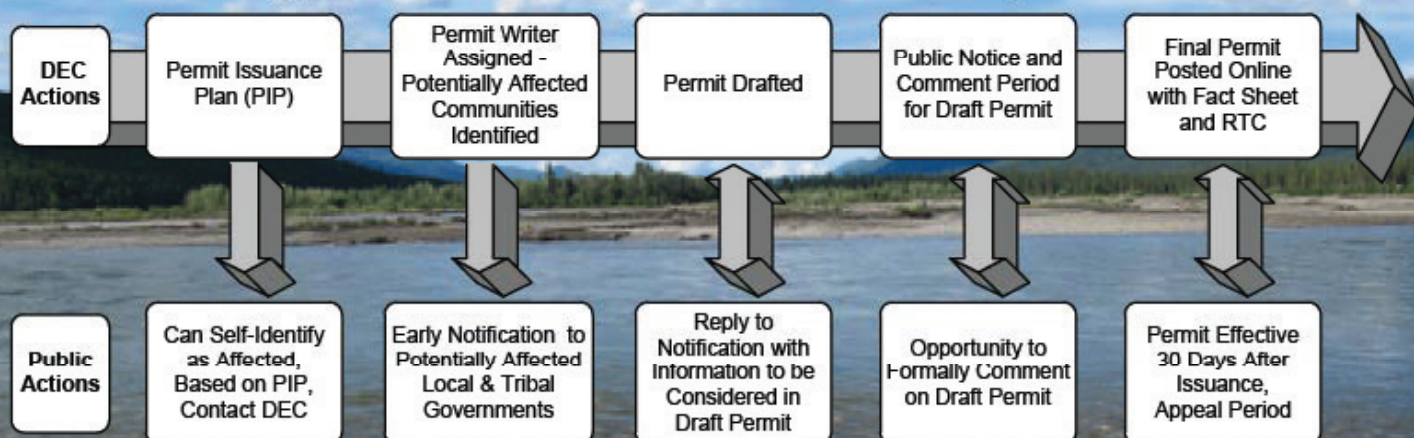
DEVELOP SOUND PERMITS BASED ON LOCAL CONDITIONS BY INVOLVING TRIBES & COMMUNITIES

DEC provides resources to facilitate early & effective involvement

- ✓ Permit Issuance Plan
- ✓ Early Notification Letters
- ✓ Public Notice
- ✓ Tribal Communication Protocol
- ✓ Tribal Website
- ✓ Guidance documents
- ✓ Supplemental process
- ✓ Technical assistance



Permitting Process and Community Involvement



The Department of Environmental Conservation (DEC) strives to develop sound permits based on a full understanding of local conditions, informs tribes about potential permitting actions that may affect them, and provides opportunities for tribal input during the permitting process.



PERMIT ISSUANCE PLAN

- ✓ PLAN FOR PERMITS EXPECTED TO BE DEVELOPED DURING NEXT TWO YEARS
 - ✓ Updated regularly
 - ✓ Posted on DEC website for public and directly mailed to local & tribal governments
 - ✓ Can self-identify as 'affected' based on PIP



2011 – 2012 PIP



BY LOCATION



NOTIFICATIONS

✓ EARLY NOTIFICATION

- ✓ Sent to potentially affected tribes and municipalities
 - ✓ Details applicant, potential discharge, & receiving waters
- ✓ Can provide information for permit development



✓ PUBLIC NOTICE

- ✓ Mailed to potentially affected local & tribal governments
- ✓ Advertised in newspapers
- ✓ Posted online

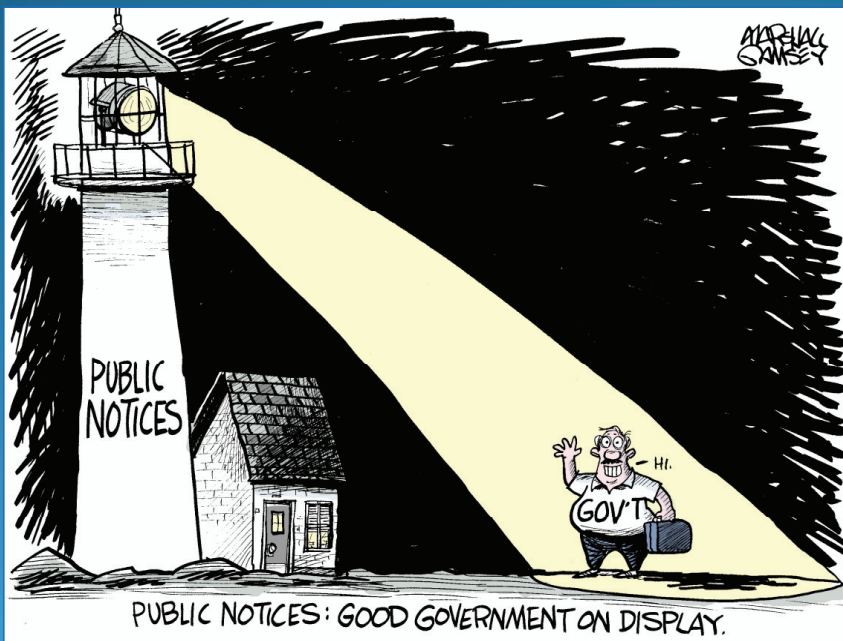


✓ POTENTIAL ADDITIONAL NOTIFICATIONS

- ✓ 10-day preliminary draft applicant review
- ✓ 5-day proposed final applicant review



PUBLIC NOTICE



- ✓ MINIMUM OF 30 DAY PUBLIC REVIEW AND COMMENT PERIOD
- ✓ FORMALLY STATE CONCERNS ABOUT PERMIT IN RECORD
 - ✓ Agency will respond to comments
 - ✓ Potential basis for future appeal



SUPPLEMENTAL PROCESS

CAN BE USED FOR PROJECTS THAT ARE:

- ✓ Large or complex with multiple discharges
- ✓ Controversial or locally or regionally important
- ✓ Concerning to subsistence or recreational resources or users



ADDITIONAL TOOLS

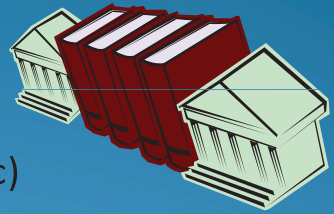
- ✓ Project Liaison – interface with tribes, public, organizations
- ✓ Communication Plan – project specific
- ✓ Workshops, meetings, hearings
- ✓ Extended comment periods
- ✓ Supplemental notice and information



PERMIT REQUIREMENT

ANYONE WHO DISCHARGES POLLUTANTS OR PROPOSES TO DISCHARGE POLLUTANTS TO U.S. WATERS MUST APPLY FOR PERMIT 40 CFR 122.1 AND 18 AAC 83.005

- ✓ Exclusions §122.23, 18 AAC 83.015
- ✓ Owner or operator §122.21(b), 18 AAC 83.105(c)



A PERMIT IS *LICENSE* TO DISCHARGE SPECIFIC AMOUNT OF WATER & POLLUTANTS UNDER CONDITIONS

- ✓ Discharge without a permit illegal
- ✓ Permits can be revoked for a cause



PERMIT APPLICATION

STATE AND FEDERALLY APPROVED APPLICATION FORMS

- ✓ Submission in advance
- ✓ Application includes outfall locations, flow, production information, effluent and intake characteristics, testing data, certification



PERMIT WRITER VERIFIES COMPLETENESS AND ACCURACY OF APPLICATION

- ✓ Additional information needed for permit development obtained from applicant, inspections, historic data, EPA guidance, other permits, etc



PERMIT TYPES

WASTEWATER DISCHARGE PERMITS

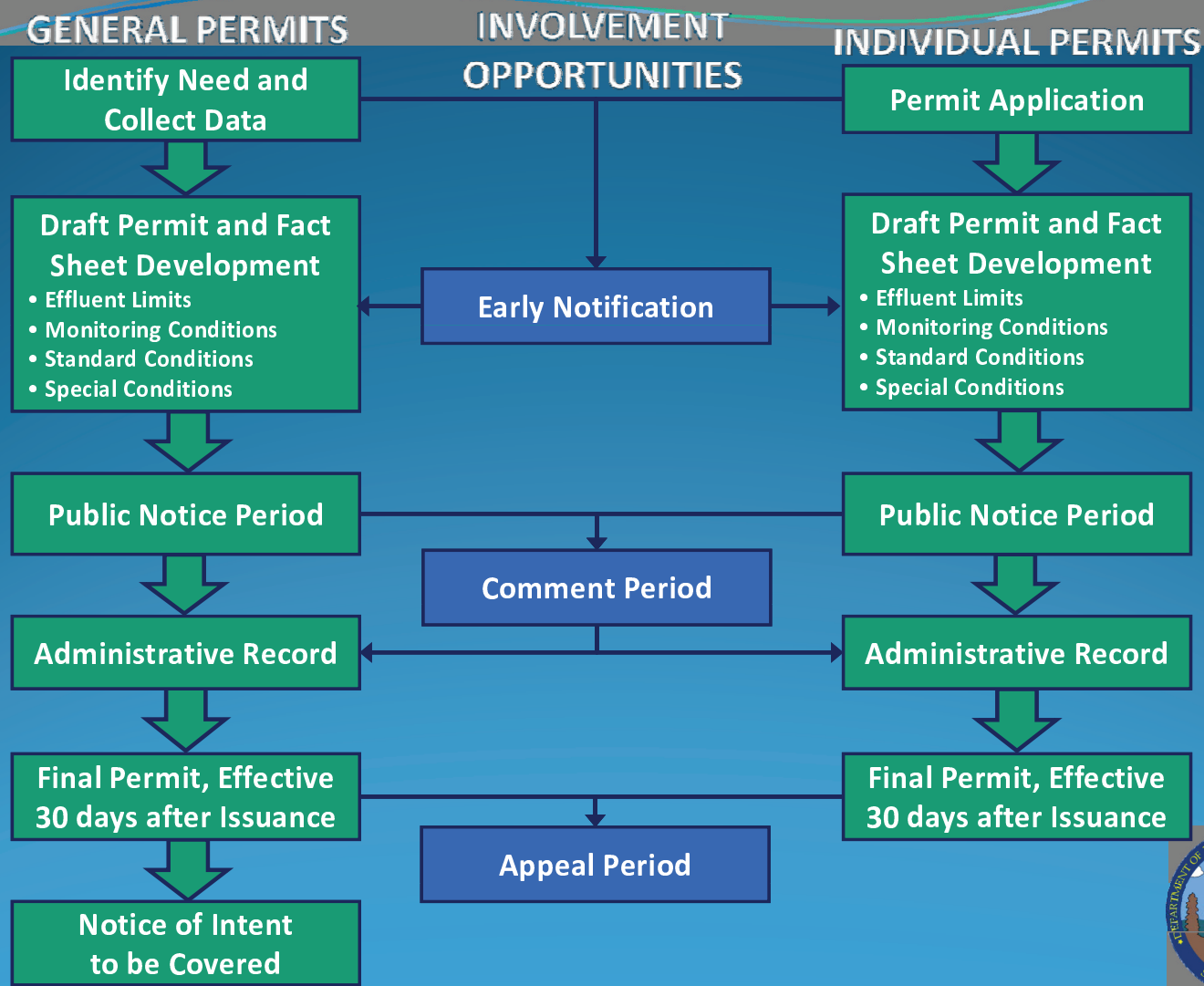
- ✓ General Permits
 - ✓ Multiple facilities with similar characteristics
 - ✓ Domestic treatment works, storm water, etc
- ✓ Individual Permits
 - ✓ Tailored to facility based on activity type, nature of discharge, receiving water quality, etc



PERMITTED DISCHARGE

- ✓ Federal Facilities – wastewater from military installations
- ✓ Pretreatment Facilities – wastewater treated prior to discharge to domestic facilities
- ✓ Industrial Wastewater – mining, seafood processing, timber storage, oil & gas
- ✓ Domestic Wastewater – sewage and graywater
- ✓ Storm Water – from construction and industrial sites





INDUSTRIAL & MUNICIPAL

DISCHARGES GROUPED INTO PUBLICALLY OWNED TREATMENT WORKS (POTWs) AND NON-POTWs

- ✓ POTWs – domestic or municipal wastewater treatment facility
 - ✓ Major POTWs generally have design flow of 1 mgd or greater, but other POTWs can be designated as majors
- ✓ Non-POTWs – all other facilities, often called ‘industrials’ or ‘non-municipals’
 - ✓ Major industrials determined by type of discharge, receiving water, toxicity, etc
- ✓ Everything else is ‘minor’



INDUSTRY-SPECIFIC COMPONENTS

COMPONENTS OF ALL PERMITS

MUNICIPAL-SPECIFIC COMPONENTS



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CONTAINS SYNOPSIS OF PERMIT AUTHORITY, FACILITY, AUTHORIZATION, AND EFFECTIVE DATES

- ✓ Regulation citation of authority and applicable laws
- ✓ Facility name and address
- ✓ Brief description of discharge
- ✓ Outfall location and receiving water
 - ✓ Latitude and Longitude of discharge point
- ✓ Permit effective and expiration date
 - ✓ Date for reapplication



INDUSTRY-SPECIFIC COMPONENTS

COMPONENTS OF ALL PERMITS

MUNICIPAL-SPECIFIC COMPONENTS



EFFLUENT LIMITATIONS

STANDARDS REQUIRING REDUCTION OF POLLUTION IN TYPE OF WASTEWATER DISCHARGE

- ✓ Technology-based Effluent Limitation (TBEL)
 - ✓ Performance standard attainable by specific industries through pollution control technology
 - ✓ Cannot require use of particular technology
- ✓ Water Quality-based Effluent Limitation (WQBEL)
 - ✓ Limited calculated to meet water quality standards (WQS)
 - ✓ Apply at the point of discharge, or boundary of DEC authorized mixing zone, whereas WQS apply to entire water body



INDUSTRY-SPECIFIC COMPONENTS

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MUNICIPAL-SPECIFIC COMPONENTS



TBEL REQUIREMENTS

TECHNOLOGY-BASED REQUIREMENTS REPRESENT
MINIMUM LEVEL OF CONTROL IMPOSED BY PERMIT
40 CFR 122.43 and 18 AAC 83.430

✓ For POTWs, TBELs are:

- ✓ Secondary treatment standards
- ✓ Equivalent to secondary treatment standards
- ✓ State-adjusted standards or waivers

✓ For Industrials, TBELs are:

- ✓ best conventional pollution control technology (BCT)
- ✓ best available technology economically achievable (BAT)
- ✓ best practicable control technology currently available (BPT) new source performance standards (NSPS)
- ✓ if standards unavailable, permit writers establish TBELs using best professional judgment (BPJ)

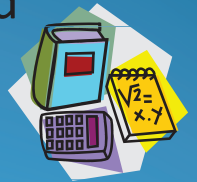


POTW TBELS

DEVELOP EFFLUENT LIMITS USING TECHNOLOGY – BASED STANDARDS

40 CFR 133 and 122.44(a) and 125.3; 18 AAC.430(1)

1. Determine which standards apply
 - Secondary, equivalent, adjusted, or waiver
2. Calculate effluent limitations using applicable standard
 - Generally expressed as average monthly or weekly limits
 - BOD₅ and TSS limits concentration based
3. Apply special considerations for further adjustments
 - Adjustments to BOD₅ & TSS concentration or % removal requirements
4. Document decisions
 - Fact sheet, administrative record



INDUSTRIAL TBELS

DEVELOP EFFLUENT LIMITS USING TECHNOLOGY – BASED PERFORMANCE REQUIREMENTS & EFFLUENT GUIDELINES

Clean Water Act Section 301, 304, 306 and 40 CFR 122, 18 AAC 83.430

1. Determine proper category and subcategory
 - Application, SIC code, development documents, etc
2. Calculate numeric limitations
 - Mass or concentration based & other standards (pH, temp)
3. Incorporate narrative requirements
 - Effluent guideline may include BMPs, treatment, monitoring, reporting
4. Account for multiple sets of requirements
 - Multiple waste streams in same, different, or unregulated categories
5. Document decision
 - Fact sheet, administrative record



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WQBEL REQUIREMENTS

WATER QUALITY-BASED REQUIREMENTS ARE LIMITS
POTENTIALLY IMPOSED BY WATER QUALITY STANDARDS

Clean Water Act Section 301(b)(1)(c) & 40 CFR 122.44(d)(1)(i), 18 AAC 83.435



- ✓ Imposed if pollution will or may discharge at levels causing or having reasonable potential to cause or contribute to water quality standard (WQS) exceedences
 - ✓ Translated from numeric and/or narrative *water quality criteria* designed to protect receiving water *designated uses* designations in WQS
 - ✓ Apply at 'end of pipe'.
 - ✓ WQS apply to receiving water or at the boundary of DEC authorized mixing zone or other variance



ESTABLISHING WQBELs

ANALYZE IMPACTS OF POLLUTANTS ON RECEIVING WATERS AND TRANSLATE WQS INTO WQBELs

Clean Water Act Sections 101(a), 301(b), 303(c), and 304(a), 18 AAC 83.435(c)

1. Identify applicable WQSs
 - WQSs in 18 AAC 70, triennially reviewed, approved by EPA
2. Characterize effluent and receiving waters
 - Water bodies in Alaska are protected for all designated uses
3. Determine if WQBELs are needed
 - If pollutant has reasonable potential to cause exceedence of WQS
4. Calculate any chemical-specific WQBELs & determine final limit
 - Calculated for any pollutant TBEL to determine which is more stringent
5. Document decision
 - Fact sheet, administrative record



ANTI-BACKSLIDING

PROHIBITION ON THE RELAXATION OF EFFLUENT LIMITS
IN REISSUED PERMITS CWA Section 402(o), 303(d) and
40 CFR 122.44, and 18 AAC 83.480(a) and (b)



✓ Backsliding is prohibited – 18 AAC 83.480(b)

- ✓ Relaxing case-by-case TBELs if less stringent guidelines developed
- ✓ Relaxing WQBEL unless consistent with Section 304(d)(4)

✓ Case-by-case exceptions – 18 AAC 83.480(b)

1. Substantial alterations or additions to permitted facility
2. New information not available at time of permit issuance
3. Technical mistakes or misinterpretations of law during issuance
4. Events beyond permittee's control with no reasonable available remedy
5. Permit modified under one of several CWA Sections
6. Permittee unable to meet limitations after properly operating and maintaining required treatment facilities



INDUSTRY-SPECIFIC COMPONENTS

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MUNICIPAL-SPECIFIC COMPONENTS



MONITORING & REPORTING

IMPORTANT FOR DETERMINING COMPLIANCE WITH PERMIT CONDITIONS AND ESTABLISHING BASIS FOR ENFORCEMENT

✓ Monitoring Logistics

- ✓ Location, frequency, and type of sample specified in permit
 - ✓ e.g. influent grab sample once/day
- ✓ Analytical methods and quality assurance
- ✓ Monitoring records must be kept
 - ✓ Sampling information, analytical reports, etc
 - ✓ Usually retained for 3-5 years



✓ Reporting Results

- ✓ All data from required monitoring and from additional monitoring
- ✓ Data from limited pollutants at least annually
- ✓ Reported on Discharge Monitoring Report (DMRs)
 - ✓ Retained for a minimum of 3 years



INDUSTRY-SPECIFIC COMPONENTS

COMPONENTS OF ALL PERMITS

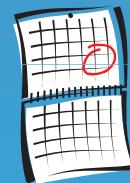
MUNICIPAL-SPECIFIC COMPONENTS



SPECIAL CONDITIONS

ADDRESS SPECIAL SITUATIONS, INCORPORATE PREVENTION, COMPLIANCE SCHEDULES, OR OTHER NPDES REQUIREMENTS

- ✓ Generally expressed as narrative requirements
- ✓ Categories of special conditions
 - ✓ Additional monitoring, reporting, or compliance requirements
 - ✓ Special studies, collecting extra data
 - ✓ Best management practices and pollution prevention
 - ✓ Site-specific or BMP Plan
 - ✓ Schedules of activities, maintenance, prevention
 - ✓ Additional treatment – pretreatment, sewage sludge
 - ✓ Compliance schedules
 - ✓ Schedule for coming into compliance with WQS



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STANDARD CONDITIONS

APPLICABLE TO ALL PERMITS 40 CFR 122.41 AND 18 AAC 83.405

APPLICABLE TO SPECIFIC PERMIT CATEGORIES 40 CFR 122.42

- ✓ Appear in every APDES permit either verbatim or by reference
- ✓ Alaska's standard conditions appear in Appendix A of permit

DUTY TO COMPLY	PROPER OPERATION AND MAINTENANCE	INSPECTION AND ENTRY	OIL AND HAZARDOUS SUBSTANCES LIABILITY
DUTY TO REAPPLY	PERMIT ACTIONS	MONITORING AND RECORDS	CULTURAL & PALEONTOLOGICAL RESOURCES
NEED TO HALT OR REDUCE ACTIVITY NOT DEFENSE	PROPERTY RIGHTS	SIGNATURE REQUIREMENTS AND PENALTIES	FEE
DUTY TO MITIGATE	DUTY TO PROVIDE INFORMATION	PROPRIETARY OR CONFIDENTIAL INFORMATION	OTHER LEGAL OBLIGATIONS



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FACT SHEET

DOCUMENT REQUIREMENTS 40 CFR 124.8, 124.56 AND 18 AAC 83.115

- ✓ Required for draft permits
 - ✓ For major facilities
 - ✓ Minor facilities require statement of basis
 - ✓ Current practice is to prepare fact sheets
- ✓ Contains facility and discharge/activity description
- ✓ Detailed rationale of permit conditions
 - ✓ Basis for effluent limits and monitoring frequency
 - ✓ Antidegradation analysis
- ✓ Permitting authority contact information



COMMENTING

INFORM THE AGENCY OF ADDITIONAL CONSIDERATIONS,
PROVIDE GENERAL FEEDBACK, CORRECT ERRORS OR OMISSIONS

- ✓ Substantive comments
 - ✓ Is information accurate?
 - ✓ Are assumptions and methodology adequate?
 - ✓ Is there other relevant information to consider?
 - ✓ Do changes need to be made?
- ✓ Out of scope comments
 - ✓ Beyond the authority of the agency
 - ✓ Out of the project scope
 - ✓ Opinions or perceptions
 - ✓ Generally speculative



SUBSTANTIVE COMMENTS

POTENTIAL TO IMPACT DEVELOPMENT OF FINAL PERMIT

- ✓ Applicability of regulations
- ✓ Typographical, calculative, or factual corrections
- ✓ Observations about facility or receiving water
- ✓ New studies or research
- ✓ Potentially affected local uses
- ✓ Issues regarding discharge location and timing



“Our tribe fishes for herring in this area. Discharge occurring between March 1 and May 30 would greatly impact herring spawning, egg incubation, and larvae hatching and dispersal.”



SUBSTANTIVE COMMENTS

HELPFUL HINTS

- ✓ Clear and concise statements or questions
- ✓ Cite permit or regulation where applicable
- ✓ On topic/scope and within authority
- ✓ Solution oriented



“Water quality based effluent limits were developed using human health criteria for fish consumption of 6.5 grams per day, however the Alaska Department of Health and Human Social Services have estimated that some villages may consume more than 10 times that. Point Hope consumes high amounts of fish, and fishes in the vicinity of the outfall.”



OUT OF SCOPE COMMENTS

NOT OFTEN CONSIDERED DURING PERMIT DEVELOPMENT AND GENERALLY INEFFECTIVE BUT MAY BE HELPFUL OR ADDRESSED

- ✓ Beyond agency authority
- ✓ Outside scope of project
- ✓ Opinions or perceptions
- ✓ Generally speculative



“The engine noise is too loud.” “Water runs off the tank farm into the river (in regard to wastewater plant).” “I don’t support any mining.” “Stop discharging toxic crap into our waters. – work for citizens, not industry.” “The area south of the outfall might be used for shellfish farming.”



PERSONAL OBSERVATIONS

BEST SUITED TO EARLY STAGES OF PERMIT DEVELOPMENT BUT INCLUDE THROUGHOUT PROCESS

- ✓ Photos, notes, records
- ✓ Years you have lived or worked in area
- ✓ Formal or information education, training, or experience related to project and/or issues you're addressing



“I’ve lived here for 20 years, and worked in power plants my whole life. I can tell the facility doesn’t always use the retention pond, and know that direct discharge often occurs based on water levels. I have photos to support this.”



YOUR COMMENT

BECOMES PART OF THE ADMINISTRATIVE RECORD, AND IS THEREFORE ACCESSIBLE BY THE PUBLIC

- ✓ Must be submitted within the comment period
- ✓ Will be responded to in RTC
- ✓ May impact development of permit
 - ✓ Substantive vs. Out of Scope
- ✓ Is public record and subject to FOIA
 - ✓ Consider proprietary, confidential, or personal info & property rights of traditional knowledge



RESPONSE TO COMMENTS

DETAILS OPPORTUNITIES FOR PUBLIC PARTICIPATION AND
COMMENTS RECEIVED DURING THOSE OPPORTUNITIES

- ✓ Legal document that contains:
 - ✓ Short summary of facility and permit
 - ✓ List of comments received
 - ✓ Responses to comments received
 - ✓ Discussion of changes made from draft permit to final permit as a result of comments received
- ✓ May provide basis for future appeal or rejection of appeal



ADMINISTRATIVE PROCESS

INFORMATION UTILIZED AND DEVELOPED DURING PERMITTING PROCESS PART OF ADMINISTRATIVE RECORD

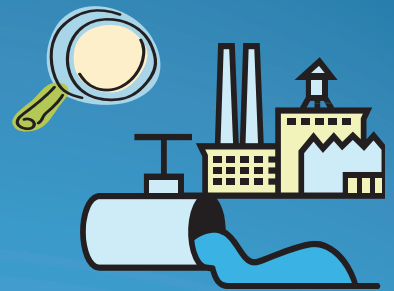
- ✓ Administrative record includes:
 - ✓ Background information such as emails, phone logs, early notifications, monitoring data, photographs, inspection reports, etc
- ✓ Permit and legal supporting documentation including:
 - ✓ Fact Sheet, Public Comments, Response to Comments, Calculations
- ✓ Available for public review and subject to FOIA requests
- ✓ Retained for at least 5 years



COMPLIANCE & ENFORCEMENT

ENSURES FACILITIES COMPLY WITH APDES PERMITS AND PROGRAM REQUIREMENTS

- ✓ Assistance
 - ✓ Develop tools, respond to requests for assistance
- ✓ Incentives
 - ✓ Provide grants and loans to address deficiencies
- ✓ Monitoring
 - ✓ Review discharge monitoring reports (DMRs), conduct evaluations, inspect facilities
- ✓ Enforcement
 - ✓ Distribute compliance and notice of violation (NOV) letters, issue civil and/or criminal penalties



INVOLVEMENT RESOURCES

WASTEWATER AND TRIBAL WEBSITES

- ✓ Guidance documents
 - ✓ Participate in the APDES Permitting Process
 - ✓ Introduction to basic and supplemental processes and tools
 - ✓ Effectively Comment on APDES Permits
- ✓ Electronic listserve
 - ✓ Sign up – provides notification at each stage
- ✓ Permits in Alaska
 - ✓ Review conditions & monitor compliance
 - ✓ Info about recently issued permits
- ✓ Enforcement and Compliance
 - ✓ ECHO & Envirofacts



TECHNICAL ASSISTANCE

✓ LOCAL AND TRIBAL GOVERNMENT COORDINATOR

- ✓ Miriah Twitchell (907) 465-5272
 - ✓ Update contact information; questions about PIP or permit; provide local information or concerns

✓ PERMIT WRITER

- ✓ Varies, will be stated in early notification letters
 - ✓ Questions about permit or facility; provide local information or concerns



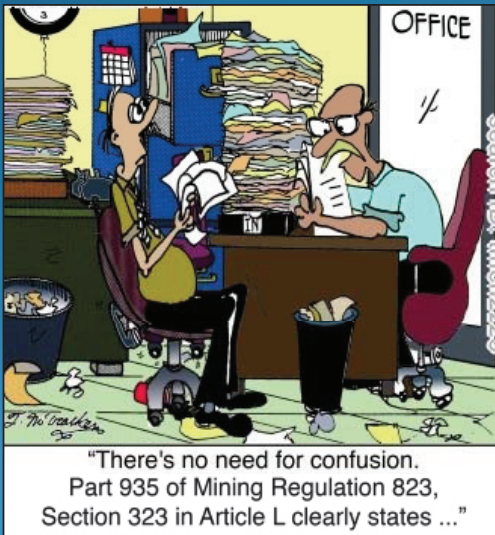
✓ PROGRAM MANAGERS

- ✓ Theresa Svancara – APDES Program (907) 465-5257
- ✓ Wade Strickland – Wastewater Permitting (907) 465-5530
- ✓ Chris Foley – Permit Compliance (907) 269-4632

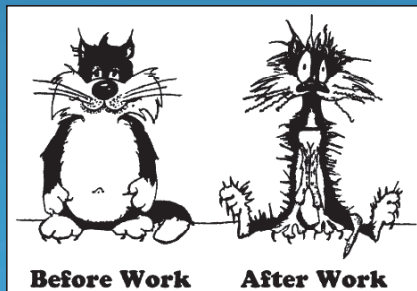


THANK YOU!

COMMENTS?



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QUESTIONS?

